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NAVAL POSTGRADUATE SCHOOL

Monterey, California



THESIS

M65577

THE ENLISTED BILLET COST MODEL

by

Melody F. Mock

June 1988

Thesis Co-advisors:

Kenneth J. Euske
Danny G. Matthews

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The Enlisted Billet Cost Model

by

Melody F. Mock
Lieutenant, United States Naval Reserve
B.A., University of Oregon, 1979

Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN MANAGEMENT

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June 1988

ABSTRACT

The purpose of this thesis is to present an enlisted manpower costing model for use in budget planning. The Enlisted Billet Cost Model is intended for use by program sponsors to both budget for personnel costs of each billet as well as to budget personnel costs for special programs. This model reflects the costs of individual enlisted personnel or groups of enlisted personnel based on areas of specialization and qualification. The Enlisted Billet Cost Model apportions costs, when possible, of enlisted personnel by pay grade and by area of specialty. Cost elements of the Military Personnel, Navy (MPN) account that cannot be assigned to individual groups of enlisted personnel are incorporated in a basic cost model. Cost elements of the MPN account that can be assigned by particular billet, special qualification, specific duty location, or critical specialty are incorporated into individual submodels.

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I. INTRODUCTION

A. GENERAL

Each year Congress appropriates funds to finance the cost of active duty military personnel serving in the Department of Defense (DOD). The specific appropriation enacted for the Navy to fund personnel costs is the Military Personnel, Navy (MPN) account. The purpose of the MPN account is to fund the manpower necessary to meet the Navy's approved force structure.

In addition to the force structure, the MPN account provides the funding which enables Navy program sponsors to plan and budget for personnel to fill specific billets. This account also includes the costs of assigning personnel to special programs.

B. BACKGROUND

Resource sponsors currently use average cost figures in manpower costing. The average cost figures do not reflect the real costs of personnel that sponsors "buy." Personnel dollars allocated to cover personnel costs of programs also do not reflect the true cost of personnel required for those programs. Refined cost estimates will enable program sponsors to more accurately plan for and "buy" billets. They will also more realistically reflect the costs of assigning personnel to special programs.

In order to provide more accurate cost estimates, the Enlisted Billet Cost Model (EBCM) was developed. This model evolved from the research done on officer manpower costing. [Ref. 1] The EBCM applies the methodology developed in the officer model to the enlisted population. The EBCM apportions the costs, when possible, of enlisted personnel by pay grade and by area of specialty. The EBCM uses averages only over specific ranges of pay grades.

C. OBJECTIVE

The objective of this research is to construct a manpower costing model and submodels which provide more accurate cost estimates for individual enlisted personnel or groups of enlisted personnel based upon areas of specialization and qualifications. The model and submodels are constructed for use by program sponsors to both budget for personnel costs of each billet as well as to budget personnel costs for special programs.

D. THE RESEARCH QUESTION

The Enlisted Billet Cost Model is designed to address the question: "Can manpower dollars be allocated to reflect the quality and special skills required for enlisted billets in each of the Navy's programs?"

E. SCOPE, LIMITATIONS AND ASSUMPTIONS

The focus of this study is to develop a basic Enlisted Billet Cost Model and six submodels which program sponsors

can use as a means of "buying" the enlisted personnel required to fill the billets for their various programs.

The costs of enlisted personnel considered in the basic EBCM are the ten components of the MPN account which include: Basic Pay, Retired Pay Accrual, Employer's Contribution to Social Security Tax, Basic Allowance for Quarters, Variable Housing Allowance, Subsistence of Enlisted Personnel, Allowances (which are classified as either Clothing Allowance or Family Separation Allowance), Permanent Change of Station Travel, Separation Payments, and Other Military Personnel Costs (which are classified as Apprehension of Military Deserters, Death Gratuities, Unemployment Compensation, Survivor's Benefits, and Educational Benefits).

The costs of enlisted personnel considered in the EBCM submodels are the two components of the MPN account which include Incentive Pay for Hazardous Duty and Special Pay. These two components are divided into the following elements: Submarine Duty, Flying Duty-Crew, Parachute Jumping, Duty Inside a High or Low Pressure Chamber, Demolition Duty, Toxic Material Pay, Flight Deck Duty, Flying Duty-Noncrew, Diving Pay, Special Duty Assignment Pay, Station Allowance Overseas, Duty at Certain Places, Overseas Extension Pay, Imminent Danger Pay, Foreign Language Proficiency Pay, Career Sea Pay, Premium Sea Pay, Enlistment Bonus, and Reenlistment Bonus.

The MPN components are applied by pay grade in both the basic EBCM and the EBCM submodels. The basic model constructed in this thesis refines average cost figures that are currently used by breaking down MPN components into specific pay elements. The six submodels developed provide enhanced estimates of costs by billet assignment and special or critical skill attainment.

There are two limitations to this model. First, costs that are of small monetary value and other undistributed costs are not assigned to individual pay grades, but assigned to applicable programs in a lump sum based on manpower estimates. Secondly, the EBCM excludes enlisted Training and Administration, Reserves (TARS) who are enlisted personnel on active duty in connection with the organization, administration, recruitment, instruction, and training of the reserve component.

Some costs cannot be readily identified to specific pay grades and billets. To adequately incorporate these costs into the EBCM, various assumptions are employed which do not furnish precise allocations but rather provide fair and reasonable apportionment. For example, the pay grades used in calculating some parts of the EBCM represent the vast majority but not necessarily all of the pay grades entitled.

F. LITERATURE REVIEW AND METHOD

The method used to collect research data consisted of literature review and interviews. Documents reviewed

include Department of the Navy Instructions, pay data from the Naval Military Personnel Command, and other applicable research reports which provide a data base and background information necessary to develop the EBCM.

Interviews conducted with Disbursing personnel of the Personnel Support Activity Monterey provided insight into the current billet costing methods and how Navy enlisted personnel are paid.

G. THESIS ORGANIZATION

This thesis is presented in four chapters and a supporting appendix. Chapter I provides a general discussion and background of the costing models presented; the objective of the thesis; the research question; the scope, limitations, and assumptions made; literature review and methodology; and thesis organization.

Chapter II presents the basic Enlisted Billet Cost Model, examines each element of the model, and discusses the assumptions used in determining each element.

Chapter III provides each of the six EBCM submodels, examines each element of the model, and discusses the assumptions used in determining each element.

Chapter IV provides conclusions and offers recommendations for this study. Conclusions are drawn from the model and recommendations for implementation and use of the EBCM are addressed.

The appendix presents the basic model and submodels by individual cost element. Also provided are the pay grade equations that describe the cost elements contained in the basic model and submodels, as well as the abbreviations used to describe the basic model and submodels.

II. ENLISTED BILLET COST MODEL

A. GENERAL

The purpose of this chapter is to present the basic Enlisted Billet Cost Model (EBCM), examine each element of the model, and discuss the assumptions used in determining each element.

Fiscal year 1986 cost data are used to calculate the EBCM cost elements. These data are used for two reasons. First, the data are the most current available. Second, they allow the EBCM cost figures to be consistent with the Officer Billet Cost Model (OBCM) which was previously constructed. [Ref. 1] Naval Military Personnel Command (NMPC) source data are used in calculating and applying each cost element of the EBCM. [Ref. 2: pp. 44-99]

Average cost figures are currently being used for annual manpower costing for all enlisted grades. These average cost figures per enlisted workyear are computed by averaging total budgeted manpower dollars for enlisted personnel over the total number of enlisted workyears available each year. The average cost figure is used by program sponsors to both budget for personnel costs of each billet as well as to budget personnel costs for special programs. However, use of this average cost figure does not accurately reflect personnel billet or special program costs. For instance,

the personnel cost to a resource sponsor of an E-1 billet is identical to the cost of an E-9 billet. The average cost figure also does not allow for added special program costs such as submarine pay, flight pay and reenlistment bonuses. The basic EBCM proposed in this thesis provides an enhanced estimate of costs by billet and special program.

The Military Personnel, Navy (MPN) account is divided into ten components and 41 sub-components. For the purposes of the EBCM these components and sub-components have either: (1) been incorporated into one of 15 elements addressed in the basic model, (2) included as an element of a submodel in Chapter III, or (3) applied to officers only and are therefore not addressed in this thesis. The 15 individual cost elements of the EBCM have been computed for each pay grade E-1 through E-9.

The EBCM excludes enlisted TARS who are the enlisted personnel on active duty in connection with the organization, administration, recruitment, instruction, and training of the reserve component.

B. ELEMENTS AND DESCRIPTION OF THE ENLISTED BILLET COST MODEL

Each of the 15 elements contained in the Enlisted Billet Cost Model (EBCM) is applied as a separate cost. Tables 1 through 3 represent the total enlisted billet costs for enlisted personnel by pay grade. Table 1 presents the total enlisted billet cost for each pay grade of nonrated

personnel (i.e., E-1, E-2, E-3). Table 2 presents the total enlisted billet cost for each pay grade of petty officer (i.e., E-4, E-5, E-6). Table 3 shows the total enlisted billet cost for each pay grade of chief petty officers (i.e., E-7, E-8, E-9). The assumptions applied to each element of the EBCM are discussed in the following paragraphs.

1. Basic Pay

Basic pay furnishes basic compensation to military personnel on active duty. Basic pay is based upon pay grade and length of service. Payment of basic pay is authorized by 37 U.S.C. [Ref. 2:p. 41]

Annual basic pay rates are computed by summing the amount of basic pay for each pay grade, and dividing the total by the amount of enlisted workyears for that pay grade to obtain an average rate per workyear for each pay grade. The basic pay rate applied to the EBCM is the rate computed by NMPC.

2. Retired Pay Accrual

Retired pay accrual provides for the Navy's portion of the military retirement liability of the Department of Defense (DOD). Retired pay accrual recognizes future payments to be paid to retired personnel. Accrual of the retired pay liability is required by 10 U.S.C. 1466. [Ref. 2:p. 45]

Retired pay accrual is computed by multiplying the normal cost percentage for a given year by the basic pay rate. For fiscal year 1986 the normal cost percentage was 50.7 percent of basic pay for the months of October 1985 through July 1986, and 42.0 percent for the months of August and September 1986. A weighted average percentage for the twelve months is calculated to be 49.25 percent per month.

3. Social Security Tax

This element covers the Navy's cost of the total DOD employer's social security tax contribution. The tax contribution is based upon a percentage rate of an enlisted member's basic pay for one calendar year. This percentage rate is set by law. Social security tax is required by the Federal Insurance Contribution Act under provision of 26 U.S.C 3101,3111, and P.L. 98-21, the "Social Security Amendment" of 1983. [Ref. 2:p. 67]

The social security tax rate for employer's contribution is based on the percentage rate set by law on a member's basic pay for a calendar year. For fiscal year 1986 the social security tax rate was 7.15 percent of basic pay.

4. Basic Allowance for Quarters

Basic Allowance for Quarters (BAQ) represents basic compensation paid to military members when adequate government quarters are not assigned. This basic allowance includes different payment amounts to members in the

following categories: with and without dependents, to members occupying inadequate family housing, and partial payment to bachelors in government quarters, on sea duty or field duty. Payment of BAQ is authorized by 37 U.S.C. 403, 37 U.S.C. 1009, and Executive Order NO. 11157, under the provisions of Section 2830 of the FY 83 Military Construction Codification Act. [Ref. 2:p. 57]

The BAQ rate is computed by multiplying the number of eligible enlisted personnel by the statutory rates for each category of BAQ and summing these totals by pay grade. Each pay grade total is then divided by each related pay grade population total to obtain the applied BAQ rate.

5. Variable Housing Allowance

Variable Housing Allowance (VHA) is the payment of housing costs, above the BAQ rate, when assigned to high cost housing areas within the United States. VHA rates are based upon pay grade and duty assignment. VHA rates are authorized by 37 U.S.C. 403A. [Ref. 2:p. 59]

VHA rates are computed by multiplying the number of eligible enlisted personnel in each pay grade by the DOD prescribed rate for each pay grade for the fiscal year. Each pay grade total is divided by each related pay grade population total to obtain the applied VHA rate.

6. Clothing Allowance

a. Categories

Clothing allowance, as authorized by the Secretary of Defense under the provisions of 37 U.S.C. 418, covers three categories: [Ref. 2:p. 61]

1. Initial Allowance--provided to enlisted personnel upon enlistment, advancement to Chief Petty Officer (E-7), or when authorized a civilian clothing allowance.
2. Maintenance Allowance (Replacement Allowance)--for uniform upkeep, which consists of a basic rate paid to members upon completion of six months active duty that accrues for three years. A standard or special rate is paid to members upon completion of 36 months of duty and continues throughout active duty.
3. A Supplemental Allowance--for special duty uniforms.

b. EBCM Computations

The EBCM clothing allowance element consists of three sub-elements termed initial allowance, replacement allowance and miscellaneous. A description of each sub-element and the method for calculation follows.

(1) Initial Allowance--Enlistment (Male and Female). The initial enlistment clothing allowance rate is computed by multiplying the number of eligible male and female personnel by the MPN budgeted amount, and then dividing this cost by the total E-1 and E-2 enlisted pay grade population. Costs are divided by the number of E-1 and E-2 personnel because the minimum time in rate flow point from E-1 to E-2 is six months and from E-2 to E-3 is also six months (see Figure 1). [Ref. 3] Consequently,

TO THE PAY GRADE OF

MONTHS ENLISTED
SERVICE

E-2	6
E-3	6
E-4	9
E-5	12
E-6	36
E-7	36
E-8	36
E-9	36

Figure 1. Minimum Time in Rate for Enlisted Personnel

over any one year period the initial enlistment clothing allowance cost will be incurred by the entire E-1 and E-2 population. This rate is applied equally to E-1 through E-2 personnel because current data sources do not contain sufficient detail to determine the payment rate by pay grade.

The initial allowance rate for advancement to E-7 is computed by multiplying the number of eligible E-7 personnel by the MPN budgeted amount and dividing it over the total of the E-7 enlisted pay grade population. Although all E-7's do not receive this allowance as a collective group annually, it is correct to assume that all E-7's do receive this allowance upon advancement. The initial clothing cost is applied across the entire E-7

population because current data sources do not contain sufficient detail to determine which E-7's are authorized the payment.

(2) Replacement Allowance. The basic clothing replacement allowance rate is computed by multiplying the number of eligible male and female personnel by the MPN budgeted amounts, and dividing this amount by the total for the E-2 through E-4 enlisted pay grade population. This amount is divided by the total for the E-2 through E-4 enlisted population because this allowance is payable to members with more than 6 months but less than three years of continuous service. According to the minimum time in rate calculations contained in Figure 1, E-2 through E-4 personnel meet these time in service requirements. This rate is applied equally to E-2 through E-4 personnel because current data sources do not contain sufficient detail to determine the payment rate by pay grade.

The standard and special allowance rates are computed by multiplying the number of eligible male and female personnel by the MPN budgeted amounts, and dividing these rates by the total for the E-5 through E-9 enlisted pay grade population. The standard and special allowance rate is divided by the E-5 through E-9 enlisted population because this allowance is payable to members with more than three years of active duty and continues throughout the remainder of continuous active duty. According to the

minimum time in rate calculations contained in Figure 1, E-5 through E-9 personnel meet these time in service requirements. This rate is applied equally to E-5 through E-9 personnel because current data sources do not contain sufficient detail to determine the payment rate by pay grade.

(3) Miscellaneous. The remaining allowance elements of OCS, AOC, Navy Unit Bands, Civilian Clothing, and Supplementary Clothing Allowance are grouped together as they cannot be easily attributed to a specific pay grade. The MPN budgeted amount for these elements is then divided by the total for the entire enlisted pay grade population.

Totals for each clothing allowance category are summed to obtain a total clothing allowance rate for each pay grade.

7. Subsistence of Enlisted Personnel

Subsistence of Enlisted Personnel covers both Basic Allowance for Subsistence, which provides a cash subsistence allowance to enlisted members subsisting separately at their own expense, and Subsistence in Kind, which represents meals furnished to enlisted personnel at government expense. Basic Allowance for Subsistence is authorized by 37 U.S.C. 402; Subsistence in Kind funds are prescribed by 10 U.S.C. 6081A and 10 U.S.C. 6087. [Ref. 2:pp. 72-73]

Subsistence of Enlisted Personnel is computed by summing the MPN budgeted amounts for Basic Allowance for

Subsistence and Subsistence in Kind. This total is divided by the total for the enlisted personnel population. Subsistence of Enlisted Personnel is applied equally because this cost element cannot be attributed to a specific pay grade.

8. Permanent Change of Station Travel

The Permanent Change of Station (PCS) travel allowance provides members with reimbursement for expenses incident to PCS travel incurred individually or as part of organized units. PCS travel covers the six sub-elements of travel and the two additional sub-elements of non-temporary storage and temporary lodging expense. [Ref. 2:p. 81] The sub-element descriptions and rate calculations are presented below.

a. Travel Sub-elements

(1) Accession Travel. Accession travel involves the PCS movement of enlistees, reenlistees, and prior service personnel from the place of enlistment to the first permanent duty station or training school of 20 weeks or more. [Ref. 2:p. 82]

This sub-element rate is obtained by dividing the MPN budgeted amount for enlisted accession travel by the total of the E-1 through E-6 enlisted pay grade population. The E-1 through E-6 population is used because these pay grades represent the pay grades of the enlistees, reenlistees, and prior service personnel.

(2) Training Travel. Training travel covers the PCS moves of enlisted personnel: (a) who are travelling from Continental United States (CONUS) permanent duty stations to schools of 20 weeks or more, (b) who are school graduates or eliminees travelling within CONUS to the next CONUS permanent duty station, and (c) who are ordered to training leading to a commission if the training is 20 weeks or more. [Ref. 2:p. 84]

This sub-element rate is obtained by dividing the MPN budgeted amount for enlisted training travel by the total of the E-1 through E-6 enlisted pay grade population, the same as was done in the accession travel sub-element. The E-1 through E-6 population is used because these pay grades represent the pay grades of the personnel who are normally sent on training duty.

(3) Operational Travel. Operational travel covers the PCS moves of enlisted personnel in either of the following two categories: (a) to and from U.S. permanent duty stations, or (b) to and from overseas duty stations when no transoceanic travel is involved. In addition, dependents, household goods, personal effects, trailer allowances, and privately owned vehicles of enlisted personnel who are interned, missing, or captured when no transoceanic travel is involved are also covered. [Ref. 2: p. 86]

This sub-element rate is obtained by dividing the MPN budgeted amount for enlisted operational travel by the total for the entire enlisted population. This rate is applied equally to all enlisted pay grades because current data sources do not contain sufficient detail to determine the payment rate by pay grade.

(4) Rotational Travel. Rotational travel covers PCS movements of enlisted personnel in either of the following two sub-categories: (a) from permanent duty station in CONUS to overseas permanent duty station, and from overseas permanent duty station to CONUS permanent duty station or (b) from one overseas permanent duty station to another overseas area when transoceanic travel is involved. In addition, dependents, household goods, personal effects, trailer allowances, and privately owned vehicles of enlisted personnel who are interned, missing, or captured when transoceanic travel is involved are covered. [Ref. 2: p. 88]

This sub-element rate is obtained by dividing the MPN budgeted amount for enlisted rotational travel by the total for the entire enlisted pay grade population. This rate is applied equally to all enlisted pay grades because current data sources do not contain sufficient detail to determine the payment rate by pay grade.

(5) Separation Travel. Separation travel covers PCS movement of enlisted personnel (a) upon release or separation from the service from the last permanent duty station to home of record, point of entry into the service, or to home of selection (when authorized by law), or (b) for travel of dependents, household goods, trailer allowances and personal effects of enlisted personnel who are deceased [Ref. 2:p. 90]

This sub-element rate is obtained by dividing the MPN budgeted amount for enlisted separation travel by the total for the entire enlisted pay grade population. This rate is applied equally to all enlisted pay grades because current data sources do not contain sufficient detail to determine the payment rate by pay grade.

(6) Travel of Organized Units. Travel of organized units covers the PCS movements, CONUS or overseas, of enlisted personnel directed to move as members of an organized unit. These moves are a function of known changes in projected force positioning due to operational requirements. [Ref. 2:p. 92]

This sub-element rate is obtained by dividing the MPN budgeted amount for enlisted travel of organized units by the total for the entire enlisted pay grade population. This rate is applied equally to all enlisted pay grades because current data sources do not

contain sufficient detail to determine the payment rate by pay grade.

b. Non-Temporary Storage and Temporary Lodging Expense Sub-elements

These sub-elements represent MPN budgeted amounts for both officer and enlisted pay grade populations. The OBCM [Ref. 1] averaged these elements over both the officer and enlisted populations to obtain the same overall rate per individual for these two elements. However, in order to more accurately reflect the enlisted cost in the EBCM, the MPN budgeted amount has been adjusted downward by applying a percentage factor. This percentage factor is determined by calculating a ratio of enlisted personnel to the total of officer plus enlisted personnel. This calculated MPN budgeted amount for enlisted personnel is then divided over the total for the E-4 through E-9 enlisted pay grade population. The underlying assumption is that the population of pay grade E-4 through E-9 personnel represent the group most likely to receive compensation for both Non-Temporary Storage and Temporary Lodging Expense.

The total PCS travel rate is obtained by summing the MPN budgeted rates for the six sub-elements of PCS travel and two sub-elements of non-temporary storage and temporary lodging expense. While this PCS element calculation may not be totally accurate, current data sources do not contain sufficient detail to determine the payment rate by pay grade.

9. Apprehension of Military Deserters

The payment for the apprehension of military deserters, absentees, and escaped military prisoners is designed to cover the costs of their delivery to military control. The costs included are: subsistence furnished during detention in civil confinement, rewards and reimbursables for expenses incurred, and costs of transportation, lodging and subsistence of a guard sent in pursuit of an absentee member. [Ref. 2:p. 95]

This rate is obtained by taking the MPN budgeted amount and dividing it by the total for the enlisted population.

10. Death Gratuities

The death gratuities element is for payment to beneficiaries of military personnel. The Servicemen's and Veteran's Survivors Benefit Act provides that the gratuity may not be less than \$800 nor more than \$3,000. Payment of death gratuities is authorized by 10 U.S.C. 1475. [Ref. 2: p. 96]

The death gratuity rate is calculated by taking the MPN budgeted amount and dividing it by the total for the enlisted population.

11. Unemployment Compensation

Unemployment compensation is paid to ex-service members who are discharged or released under honorable conditions meeting one of two criteria: (a) completed first

full term of active service, or (b) discharged before completing first term under an early release program due to hardship, for medical reasons, or for personality disorders or inaptitude (but service was continuous for one year or more). Authorization for payment of unemployment compensation is contained in Title 5, United States Code. [Ref. 2:p. 97]

Unemployment compensation is calculated by taking the MPN budgeted amount and dividing it by the total for the enlisted population.

12. Survivor's Benefits

Survivor's benefits provide for restoration of social security benefits to widows and orphans of military personnel which were withdrawn under Public Law 97-35. Public Law 97-35 terminated the "mother's" benefit when the last child in custody of the surviving spouse reached age 16, rather than 18, and affected the "school child" by either eliminating benefit payments or by requiring a reduction in benefits. Section 156 of P.L. 97-377, as modified by Section 943 of the DOD Authorization Act, FY 84, and P.L. 98-94 restored these social security benefits to survivors of military members and directed DOD to budget for this requirement. [Ref. 2:p. 98]

The purpose of this payment is to restore only those items eliminated by P.L. 97-35 and not to provide full social security benefits, the available data are inadequate

to determine benefit eligibility by pay grade. The survivor's benefit rate is calculated by dividing the MPN budgeted amount by the total of the enlisted and officer populations.

13. Educational Benefits

The educational benefits element represents payment to a DOD educational benefits trust fund. This trust fund provides additional and supplemental educational benefit payments above what is budgeted for by the Veterans Administration. Funds are budgeted on an accrual basis by DOD. Members eligible for this payment must have entered active duty between 1 July 1985 and 30 June 1988. Authorization for educational benefits is governed by 38 U.S.C. Chapter 30. [Ref. 2:p. 99]

The educational benefit rate is computed by taking the MPN budgeted amount and dividing it by the total for the enlisted and officer populations.

14. Separation Payments

Separation payments cover three categories: lump sum terminal leave payments, severance pay disability, and discharge gratuity donation.

a. Lump Sum Terminal Leave Payments

This payment is for unused accrued leave at time of discharge or death, under the provisions of 37 U.S.C. 501 and 10 U.S.C. 701.

The amount for this category is calculated by multiplying the total number of eligible enlisted personnel in each pay grade by the budgeted rate for each pay grade, and dividing it by the total for each individual enlisted pay grade population.

b. Severance Pay Disability

This payment is made to members separated (not retired) for physical disability, under provisions of 10 U.S.C. 1212.

c. Discharge Gratuity Donation

This payment (less than \$25) is made to members separated with a dishonorable, bad conduct, or undesirable discharge under provisions of 10 U.S.C. 771A. [Ref. 2:p. 65]

Categories b. and c. are applied equally to the total number of enlisted personnel, as these categories cannot be attributed to a specific pay grade. The MPN budgeted amounts in both of these categories are summed and divided by the total for the enlisted personnel population in order to obtain a single combined rate.

In the EBCM, separation payments are applied individually by pay grade. This is accomplished by summing the lump sum terminal leave payment for each pay grade with the combined rate calculated for severance pay disability and discharge gratuity to obtain the total separation payment figure applied to each pay grade.

15. Family Separation Allowance

Family separation allowance is paid to enlisted members with dependents when one of the following four conditions exists.

- a. Permanent Change of Station With Dependents Not Authorized/Government Quarters Not Available

This condition applies when the movement of dependents to an overseas permanent duty station is not authorized and the member must maintain two homes because government quarters are not available at the new duty station.

The amount for this category is calculated by multiplying the total number of eligible enlisted personnel in each pay grade by the budgeted amount for each pay grade, and dividing it by the total for each individual enlisted pay grade population. E-1's are excluded from this allowance category.

- b. Permanent Change of Station with Dependents not Authorized

This condition applies when the movement of dependents to the permanent duty station (or place near the station) is not authorized at government expense under the Joint Travel Regulations and the member's dependents do not reside at or near that station.

c. On Board Ship for More Than 30 Days

This condition applies when the member is on duty on board a ship away from the home port of the ship for a continuous period of more than 30 days.

d. Temporary Duty for More than 30 Days with Dependents not Residing Near Temporary Duty Station

This condition applies when the member is on temporary duty (or temporary additional duty) away from that individual's permanent station for a continuous period of more than 30 days and the member's dependents do not reside at or near the member's temporary duty or (temporary additional duty) station.

Categories b., c., and d. are applied equally to the total enlisted population because the same flat rate is paid to all eligible members regardless of pay grade. The number of members eligible by pay grade cannot be determined due to the structure of the data. A combined rate for categories b., c., and d. is therefore computed by summing the three MPN budgeted amounts and dividing this rate by the total for the enlisted personnel population.

Family separation allowance is applied by pay grade in the EBCM. Each pay grade amount is computed by summing the pay grade figure calculated for category a. with the combined rate for categories b., c., and d. to obtain a total rate applied to each pay grade. This allowance is authorized by 37 U.S.C. 427. [Ref. 2:p. 63]

C. EQUATIONS OF THE ENLISTED BILLET COST MODELS

The descriptions and assumptions of each of the 15 elements of the MPN account were used to develop equations to calculate the basic enlisted billet cost by pay grade. Tables 22 through 29 in the Appendix contain these equations.

III. ENLISTED BILLET COST SUBMODELS

A. GENERAL

The purpose of this chapter is to present each of the six EBCM submodels, examine the elements of each submodel, and discuss the assumptions used in calculating each element.

The two components of the MPN account that are the basis for the EBCM submodels are Incentive Pay For Hazardous Duty (IPHD) and Special Pay (SP). All hazardous duty and special pays that enlisted personnel may be entitled to have been incorporated into one of the six submodels. The enlisted billet structure is a very diverse system which cannot be represented by a single costing model. Since it is not possible to construct a single model which can consider special billet assignments and skill level attainment, these two components and 21 sub-components are excluded from the basic EBCM. Payment of each element discussed in this chapter is unique among members who: (1) occupy specific enlisted ratings, (2) have obtained special qualifications and earned Navy Enlisted Manpower and Personnel Classification (NEC) Codes, (3) are assigned to specific duty locations, (4) are required to perform duty due to billet assignment, and/or (5) have enlisted or reenlisted in a critical rating or NEC code and are entitled to a bonus

payment. The six distinct submodels developed in this chapter are designed to address costing of billets requiring personnel who meet these criteria.

B. BACKGROUND

The methodology used in selecting the six submodel categories focuses on the assignment costs of sending a member to a particular billet, or designating a member in a particular rating/NEC code.

The Enlisted Billet Cost Submodels developed in this chapter provide resource sponsors with costs which more closely approximate the true costs of particular enlisted billets. For example, the costs of assigning an enlisted member to a hazardous billet which requires a specific NEC code are illustrated in Tables 4 through 6. Likewise, the costs of assigning an enlisted member to an overseas duty assignment are found in Tables 13 through 15. The six submodels discussed in this chapter are:

IPHD	NEC Required Submodel
IPHD	NEC Not Required Submodel
SP	NEC Required Submodel
SP	Overseas Assignment Submodel
SP	Sea Assignment Submodel
SP	Bonus Entitlement Submodel.

Before discussing the two IPHD submodels and their elements, a definition and description of the terms "enlisted rating" and "NEC" code are required.

1. Enlisted Rating

A rating is an occupational specialty that includes related aptitudes, training, experience, knowledge, and special skills such as Aircraft Maintenceman (AF) and Gas Turbine Systems Technician (GS). [Ref. 4]

2. Navy Enlisted Manpower and Personnel Classification (NEC) Codes

The Navy Enlisted Manpower and Personnel Classification (NEC) codes reflect special knowledge and skills. They are used to identify billet requirements and personnel with specific qualifications. NEC codes are received after successful completion of specific training, such as diving and aircrewman. The NEC coding system facilitates management control over enlisted skills by enhancing efficient utilization of personnel in distribution and assignment. Funds authorized for specialty training depend, to a great extent, upon the accuracy, thoroughness and timeliness of NEC coding. [Ref. 5]

C. INCENTIVE PAY FOR HAZARDOUS DUTY SUBMODELS

1. Overview

Enlisted personnel are entitled to incentive pay when performing hazardous duty routinely required by job assignment. This pay is designed to attract and retain the highest caliber of personnel in certain career fields. Eligibility for incentive pay is based on either NEC code qualification or qualification without NEC code based on

orders assignment. There are eight elements of incentive pay for hazardous duty. Six elements are incorporated into the first submodel (NEC Required) and two are incorporated into the second submodel (NEC Not Required). The two submodels are categorized as follows:

NEC Required

Submarine Duty

Flying Duty- Crew

Parachute Jumping

Duty Inside a High- or Low-Pressure Chamber

Demolition Duty

Toxic Material Pay

NEC Not Required

Flight Deck Duty

Flying Duty--Non Crew

Enlisted personnel are entitled to receive not more than two categories of payment of incentive pay at any one time. 37 U.S.C. 301 provides the authorization for payment. [Refs. 2: p. 46; 6:p. 193]

2. IPHD--NEC Required Submodel

a. Submarine Duty

Submarine duty pay is paid to enlisted members who perform regular operational submarine duty required by orders and meet the following two criteria: (a) hold a submarine designator or are in training leading to one, and

(b) are in and remain in the submarine service on a career basis. [Ref. 6:p. 203]

Submarine duty pay is prescribed by law based on pay grade and years of service. When a member is promoted to the next higher pay grade and/or gains an additional year of service the member is authorized payment at a higher rate of pay. Since this submodel element employs a minimum time in rate calculation that assumes enlisted personnel will advance to the next higher pay grade in the minimum amount of time, different pay rates may apply to each pay grade. Figure 1 illustrates minimum time in rate in months. [Ref. 3]

Submarine duty pay for each pay grade is calculated by multiplying each rate of submarine duty pay that applies to a pay grade by the number of months that rate is applicable. The products of these rate times month calculations are summed, divided by the total time in rate in months for the pay grade (Figure 1) and multiplied by twelve to obtain the annual rate of submarine duty pay for the pay grade.

b. Flying Duty--Crew

Flying duty pay is paid to crew members who participate regularly and frequently in aerial flight, other than glider flight. Naval Aircrewmen with NEC code 82XX in permanent flight status are eligible to receive payment. Minimum flight requirements must be obtained in order to

qualify for flying duty pay. Minimum flight requirements vary with circumstances and are outlined in Section 104 of Title 37 of the United States Code. [Ref. 6:p. 195]

Flying duty pay rates are prescribed by pay grade for those Naval Aircrewmen with NEC code 82XX in permanent flight status. [Ref. 2:p. 46]

c. Parachute Jumping

Parachute jumping pay is given to enlisted members involved in parachute jumping as an essential part of military duty. Members are required to perform one or more parachute jumps from an airplane in flight during any three consecutive calendar months in order to be entitled to this incentive pay. An exception to this requirement occurs if the Commanding Officer certifies either an absence of jump equipment or aircraft, or the member was unable to jump due to military operations. In these two cases a minimum of four jumps during 12 consecutive months is required. [Refs. 2:p. 46; 6:p. 192]

Eligibility for this pay is based upon qualification in any of the following three NEC codes:

5335 (Senior Explosive Ordnance Disposal (EOD) Technician/Parachutist),

5337 (Master EOD Technician/Parachutist), or

9554 Master Naval Parachutist. [Ref. 5]

For pay computation purposes, the MPN budgeted amount of \$1,524 is used as the rate applied to all pay grades per workyear. This figure is a weighted average of

statutory pay rates and pay rates for jumps defined as high altitude/low opening. The parachute jumping statutory pay rate is \$1,320 per workyear. Personnel performing high altitude/low opening jumps are entitled to \$1,980 per year. [Ref. 2:p. 46] The MPN budgeted amounts provides a reasonable pay rate for use in the model.

d. Duty Inside High- or Low-Pressure Chamber

This incentive pay is paid to enlisted members in the Hospital Corpsman (HM) rating who perform duty inside hypobaric pressure chambers at physiological aviation medical testing facilities. HM's must obtain qualification in NEC 8409 (Aerospace Physiology Technician) to be entitled to compensation. [Refs. 5; 6:p. 192]

Pay is computed at the statutory rate of \$1,320 per workyear in accordance with the FY 86 Authorization effective 1 OCT 85. [Ref. 2:p. 46]

e. Demolition Duty

Payment of demolition duty hazardous pay involves primary duty in one of the following four areas: (1) using explosives to demolish underwater objects, obstacles, or explosives, (2) disarming explosives which have failed to function as intended or which have become potential hazards, (3) participating as students or instructors in demolition training, or (4) participating in demolition training in order to maintain skill proficiency. [Ref. 6:p. 197]

Special Warfare trained EOD Technicians are required to obtain NEC Codes 5332 through 5334 in order to qualify to handle explosives and munitions. [Refs. 2:p. 46; 5]

Pay is computed at the statutory rate of \$1,320 per workyear in accordance with the FY 86 Authorization effective 1 OCT 85. [Ref. 2:p. 46]

f. Toxic Material Pay

Toxic material pay is paid for hazardous duty involving frequent and regular exposure to: (1) highly toxic fuels or propellants while servicing aircraft or missiles, or (2) pesticides or laboratory work that uses live dangerous viruses or bacteria. Entitlement for this pay is based upon the potential for accidental or inadvertent exposure to highly toxic fuels or substances, and not upon actual exposure to these substances. [Refs. 2: p. 46; 6:p. 197]

Enlisted personnel entitled to this pay include HM's with NEC 8506 (Toxicology) and those personnel in aviation ratings exposed to toxic fuels and propellants while performing duty of servicing aircraft or missiles.

Pay is computed at the statutory rate of \$1,320 per workyear in accordance with the FY 86 Authorization effective 1 OCT 85. [Ref. 2:p. 46]

3. IPHD--NEC Not Required Submodel

a. Flight Deck Duty

Flight deck duty pay is paid to enlisted personnel who regularly and frequently participate in flight operations on ships from which aircraft are launched. Any rating can be designated as eligible to receive this pay by billet assignment such as during helicopter exercises or fire party duty. Payment entitlement stops when duty is no longer assigned.

Pay is computed at the statutory rate of \$1,320 per workyear in accordance with the FY 86 Authorization effective 1 OCT 85. [Ref. 2:p. 46]

b. Flying Duty--Non-Crew

This incentive pay is paid to enlisted personnel who regularly and frequently participate in aerial flight as non-crew members.

Pay is computed at the statutory rate of \$1,320 per workyear in accordance with the FY 86 Authorization effective 1 OCT 85. [Ref. 2:p. 46]

D. SPECIAL PAY SUBMODELS

1. Overview

Special Pay (SP) provides compensation for those enlisted personnel with proficiency in an advanced skill, who are assigned to an overseas or sea duty billet, or who qualify for a rating bonus.

There are nine elements of special pay incorporated into four submodels. The four submodels are categorized as follows:

NEC Required

Diving Pay

Special Duty Assignment Pay (SDAP)

Overseas Assignment

Station Allowance Overseas

Duty at Certain Places

Overseas Extension Pay

Imminent Danger Pay

Foreign Language Proficiency Pay

Sea Assignment

Career Sea Pay

Premium Sea Pay

Bonus Entitlement

Enlistment Bonus

Reenlistment Bonus.

Enlisted personnel may receive as many special pays as they are entitled.

2. SP--NEC Required Submodel

a. Diving Pay

Diving duty pay is paid to those NEC qualified enlisted personnel who meet the following three criteria: (1) are assigned by orders to diving duty, (2) are required to maintain proficiency as divers by frequent and regular

dives, and (3) actually perform diving duty. 37 U.S.C. 304 provides authorization for payment of this special pay. [Refs. 2:p. 49; 6:p. 210]

Special Warfare qualified enlisted personnel who receive diving training and become diving qualified receive one of the following NEC Codes: [Ref. 5]

5301	Underwater Demolition Team (UDT)/Sea and Land (SEAL) candidate
5302	Explosive Ordnance Disposal (EOD) candidate
5303	2nd class swimmer candidate
5311	Saturation diver
5320-5327	Special Warfare Combatant Swimmers
5331-5337	Explosive Ordnance Disposal (EOD)
5341	Master Diver
5342	Diver 1st Class
5343	Diver 2nd class
5345	Scuba Diver
5346	Master Saturation Diver
5348	Marine Mammal System Operator
5375	Salvage/Construction.

Enlisted personnel assigned to diving duty who maintain their proficiency as divers are entitled to this pay. A member may also be entitled to incentive pay for hazardous duty in addition to diving duty if assigned by orders to hazardous duty. Diving duty pay is a monthly amount which varies depending on skill/class of divers not to exceed \$300. For computation purposes, the MPN budgeted

amount of \$1,940 per year is used as the rate applied to all pay grades because current data sources do not contain sufficient detail to determine the payment rate by pay grade.

b. Special Duty Assignment Pay (SDAP)

Special Duty Assignment Pay (SDAP) is also known as Proficiency Pay. It is paid to those enlisted personnel designated by NEC code as being specially proficient in a military skill. This pay is designed to provide enlisted personnel with an incentive to be assigned to special duty assignments in order for the Navy to sustain adequate manning levels in those special assignments. Payment of SDAP is authorized by 37 U.S.C. 307. [Refs. 2:p. 52; 6:p. 214]

This submodel element is based on the assumption that the following skills, as outlined in Reference 2, qualify for SDAP:

Acoustic Intelligence Specialist

Aegis Fire Control Technician

ASROC Gunner's Mate

Career Counselor

Helicopter Mine Countermeasures Aircrewman

Helicopter Rescue Air Crewman

Independent Duty Hospital Corpsmen

Nuclear Propulsion Operator

Nuclear Propulsion Plant Supervisor

Operation Deep Freeze Personnel

Operations Specialist Air Controllers

P-3 Flight Engineers

Recruit Company Commander and Assistant Commander

Recruiters

Submarine Assistant Navigator

Survival, Evasion, Resistance and Escape (SERE)

Instructor.

Due to the skill proficiency requirement, the assumption is made that the majority of enlisted personnel in pay grades E-1 through E-3 have not yet accumulated the time required to receive adequate training/experience. Only personnel in pay grades E-4 through E-9 are considered eligible to receive SDAP. This rate is applied equally to E-4 through E-9 personnel because current data sources do not contain sufficient detail to determine the payment rate by pay grade.

The MPN budgeted amount for SDAP is separated by skill only for recruiters. Recruiters SDAP is calculated by dividing the MPN budgeted amount for recruiter SDAP by the number of recruiters to arrive at an equal yearly figure for all recruiters. [Ref. 2] Likewise, the remaining SDAP yearly cost figure per person is calculated by dividing the MPN budgeted amount for SDAP by the number of eligible personnel (as defined above) to arrive at an equal yearly

figure for all remaining personnel. These two figures are costed separately in the SDAP element.

3. SP--Overseas Assignment Submodel

a. Station Allowance Overseas

Station Allowance Overseas is the per diem paid to enlisted personnel assigned to permanent duty stations outside the United States for cost of living, housing, and temporary lodging expenses. Authorization for this allowance is contained in 37 U.S.C. 405, as prescribed in the Joint Travel Regulations. [Ref. 2:p. 60]

This allowance is calculated by dividing the MPN budgeted amount by the total for the entire enlisted population. This amount is then applied equally to all pay grades because current data sources do not contain sufficient detail to determine the payment rate by pay grade.

b. Duty at Certain Places

Also known as foreign duty pay, all enlisted personnel assigned duty in certain places outside the United States are entitled to this pay. Title 37 U.S.C. 305 provides the authorization for payment. Payment is based upon a monthly rate by pay grade as designated by the Secretary of Defense. [Refs. 2:p. 49; 6:p. 210]

c. Overseas Extension Pay

Overseas extension pay is paid to all enlisted personnel in certain specialties (ratings) who have

completed a tour of duty at an overseas location and agree to extend that tour for a period of more than one year. Authorization for payment is contained in 37 U.S.C. 314] Compensation is paid at a monthly amount of \$80 to eligible enlisted personnel. [Ref. 2:p. 49]

d. Imminent Danger Pay

Imminent Danger Pay (also known as duty subject to hostile fire) is paid to enlisted personnel who are either: (1) serving in designated hostile areas, (2) exposed to hostile fire or explosion of hostile mines, or (3) serving in a foreign country subject to the threat of physical harm or imminent danger based upon civil insurrection, civil war, terrorism, or wartime conditions. Payment of this special pay is authorized by 37 U.S.C. 310.

A payment of \$110 per month is payable to eligible enlisted personnel assigned to duty as outlined above. [Ref. 2:p. 49]

e. Foreign Language Proficiency Pay

Foreign language proficiency pay is paid to qualified enlisted personnel whose military specialty requires proficiency in a foreign language. Payment is authorized by 37 U.S.C. 316. [Ref. 2:p. 49]

Payment of this element of special pay is currently not being utilized, although a monthly rate of \$100 for all pay grades has been established. Since MPN budgeted cost estimates include this pay element even though

payment is not currently authorized, Foreign Language Proficiency Pay is included as an element of the Special Pay submodel. The assumption made is that future budgeted amounts will be incorporated into this submodel element at the designated flat rate of \$100.

4. SP--Sea Assignment Submodel

a. Career Sea Pay

Career Sea Pay is paid to all enlisted personnel in pay grades E-4 through E-9 who meet one of the following three criteria: (1) are serving aboard a ship, the primary mission of which is accomplished while underway, (2) are assigned to the off crew of a two-crewed submarine, or (3) are serving aboard a ship whose primary mission is accomplished in port (e.g., tenders and repair ships). For enlisted members under criterion (3), career sea pay is earned only when the ship is underway for 30 consecutive days or more. Payment of this pay is authorized by 37 U.S.C. 305A. [Refs. 2:p. 49; 6:p. 212]

Career sea pay is based on years of sea duty, by pay grade. When a member is promoted to the next higher pay grade and/or has served an additional year of sea duty, the member is authorized payment at a higher rate of pay. Since this submodel element is based on a minimum time in rate calculation that assumes enlisted personnel will advance to the next higher pay grade in the minimum amount of time, different pay rates may apply to each pay grade. Figure 1

illustrates minimum time in rate in months. [Ref. 3] This submodel element is also based on the assumption that enlisted personnel are assigned to sea duty as an E-1 and remain at sea throughout their career. This assumption is made because current data sources do not contain sufficient detail to determine career sea pay in another manner. Career sea pay for each pay grade is calculated by multiplying each rate of career sea pay that applies to a pay grade by the number of months that rate is applicable. The products of these rate times month calculations are summed, divided by the total time in rate in months for the pay grade (Figure 1) and multiplied by twelve to obtain the annual rate of career sea pay for the pay grade.

b. Premium Sea Pay

Premium sea pay is paid to eligible enlisted personnel who receive career sea pay and have served more than 36 consecutive months of sea duty. [Refs. 2:p. 49; 6:p. 212]

The premium sea pay rate is a flat rate of \$100 per month. Since more than three years of consecutive sea time is required for payment, for purposes of this submodel premium sea pay is calculated for all personnel in pay grades E-4 through E-9.

5. SP--Bonus Entitlement Submodel

a. Enlistment Bonus

An Enlistment Bonus (EB) is designed to attract and increase the number of enlistments in hard-to-fill ratings. It is paid to eligible personnel who either enlist for at least four years in a critical skill, or extend their initial period of active duty to a total of at least four years in a skill with inadequate accession level rates. [Ref. 6:p. 217] Eligible ratings and bonus amounts are promulgated by OPNAVNOTE 1130 [Ref. 7] as critical skill accession levels change.

Enlistment bonuses are contracted for at the time of enlistment but not paid until successful completion of Class "A" School training. The amount cannot exceed \$8,000 and is paid in periodic installments. The first installment may not exceed \$5,000 and the remainder is paid periodically, but not less than once every three months. [Ref. 4:p. 217] Authorization for payment is contained in 37 U.S.C. 308A. [Ref. 2:p. 55]

The most undermanned critical skills used in this submodel element for computation purposes [Ref. 8] are as follows:

Boiler Technician (BT)

Cryptologic Technician (Interpretive) (CTI)

Gunner's Mate (GMG/GMM/GMT)

Signalman (SM)

Sonar Technician (Submarine) (STS)

Strategic Weapons (SWSE)

System Electronics

Weapons Technician

Nuclear Field.

The assumption is made that the majority of enlistment bonus amounts are received by enlisted personnel in pay grades E-1 through E-3. This rate is applied equally to E-1 through E-3 personnel because current data sources do not contain sufficient detail to determine the payment rate by pay grade.

The MPN budgeted enlistment bonus amount is divided into two sub-elements: new payments and residual payments. New payments is the term used for the first installment payment and residual payments refers to the remaining installment payments. Each payment is comprised of varying bonus amounts. For pay computation purposes, \$2,445 for new payments and \$2,226 for residual payments is used as the rate applied to pay grades E-1 through E-3 per workyear. These figures are the MPN budgeted amount for new payments and residual payments divided by the estimated number of eligible personnel. These amounts provide reasonable pay rates for use in the submodel.

b. Reenlistment Bonus

A Reenlistment Bonus (also known as a Selective Reenlistment Bonus (SRB)) is designed to increase the number

of enlistments in critical skills, by rating or NEC code, that are undermanned due to insufficient retention. SRB's have been determined to be the most cost effective management tool for increasing and sustaining manning in mission essential skills. [Refs. 2:pp. 2,53; 8]

Eligible personnel must meet the following five criteria: [Ref. 6:pp. 214-215]

1. complete at least 21 months but less than 14 years of continuous active duty,
2. qualify in a military skill designated as critical,
3. reenlist or extend enlistment for at least three years,
4. be in pay grade E-3 (and a designated striker) through E-7, or
5. be serving in a SRB rating or NEC code eligible rating.

Bonus payments may be paid in either a lump sum or in installments. Total payment is based upon the following formula: {(Monthly Basic Pay rate multiplied by the SECNAV established award level) multiplied by (obligated additional service in months (not to exceed 72) divided by 12)}, or \$20,000, whichever is the lesser amount. [Ref. 6: p. 215]

The ten most undermanned skills used in this submodel element [Ref. 2] are:

Avionics Antisubmarine Warfare Operator (AW)

Diver

Fire Control Technician (FC)

Gas Turbine Systems Technician--Electrical (GSE)
Gas Turbine Systems Technician--Mechanical (GSM)
Intelligence Specialist (IS)
Machinist's Mate (MM)
Nuclear Trained Petty Officer
Operations Specialist (OS)
Sonar Technician--Submarine (STS).

The MPN budgeted reenlistment bonus amount is divided into initial payments and anniversary payments. Anniversary payments are amounts paid in each succeeding year on the same date as the date of reenlistment. For pay computation purposes, the calculated amount of \$6,883 for initial payments and \$1,500 for anniversary payments is used as the rate applied to pay grades E-3 through E-7 per workyear. This figure is the MPN budgeted amount for initial payments and anniversary payments divided by the estimated number of eligible personnel. These calculated amounts provide reasonable pay rates for use in the submodel.

IV. SUMMARY AND RECOMMENDATIONS

A. SUMMARY

Chapter I provides a general discussion and background of the costing models presented, the objective of the thesis, the research question, the scope, limitations, and assumptions made, literature review and methodology and thesis organization. Chapter II presents the basic Enlisted Billet Cost Model (EBCM), examines each element of the model, and discusses the assumptions used in determining each element. Chapter III provides each of the six EBCM submodels for Incentive Pay For Hazardous Duty (IPHD) and Special Pay (SP), examines each element of the submodels, and discusses the assumptions used in determining each element. Chapter IV provides conclusions and recommendations. It discusses limitations for implementation and future use of the models as well as recommendations for further study. This chapter is sectioned into three parts: Summary, Recommendations and Limitations, and Topics For Further Study.

This thesis presents a basic Enlisted Billet Cost Model (EBCM) and six EBCM submodels covering Incentive Pay for Hazardous Duty and Special Pay. Currently, resource sponsors use average cost figures in manpower costing. The present cost to a resource sponsor to staff an E-1 billet is

identical to the cost of staffing an E-9 billet. All enlisted billets, regardless of rating, pay grade, or experience level are now costed at \$25,000, which represents the arithmetic mean budget cost for an enlisted person. [Ref. 9] The weighted average of the costs of the E-1 through E-9 billets using the basic EBCM is \$25,080.67. The weighted average is computed by first multiplying the EBCM cost for each pay grade by the number of personnel in each pay grade. These figures are then summed together and divided by the total number of enlisted personnel. This figure is slightly above the mean budget cost of \$25,000 that is currently used. The difference can be attributed to rounding error and the assumptions used in the EBCM. As calculated in the basic EBCM, a more accurate cost of filling an E-1 billet is \$15,039.89 and an E-9 billet is \$52,165.25. This illustrates that there are significant differences in costs of filling billets due to predetermined pay grade requirements for personnel assigned to each billet.

When the IPHD and SP submodels are included, a more accurate cost based on billet assignment and special or critical skill attainment is possible. For example, the additional cost of an E-1 stationed overseas, as illustrated in Table 13, could be as high as \$2,595 resulting in an E-1 total billet cost of \$17,289.34. Likewise, the additional cost of an E-1 receiving an enlistment bonus, as

demonstrated in Table 18, is \$4,671. This would result in an E-1 total billet cost of \$19,365.35.

B. RECOMMENDATIONS AND LIMITATIONS

1. Recommendation One--Implement the EBCM as Designed

The enlisted personnel costs, as defined in the EBCM and six IPHD and SP submodels, more correctly represent the actual cost of each billet than does the flat rate of \$25,000 currently used.

2. Recommendation Two--Update Cost Figures and Review Assumptions on an Annual Basis

Cost figures and assumptions employed in the EBCM should be reviewed at least annually for possible budget changes in fiscal year MPN appropriation amounts. This review will help ensure that the costs being used in the basic model and submodels are accurate.

3. Limitations

Enhanced accuracy of cost figures could be obtained if selected elements could be further classified by authorized user population. In the basic model selected elements have been allocated evenly across the total enlisted population (e.g., Subsistence of Enlisted Personnel, Apprehension of Military Deserters, Death Gratuities, Survivor's Benefits and Educational Benefits). In order to attain a greater degree of accuracy for these figures additional information is needed to construct submodels for the specific elements. For some of these

elements greater accuracy may not be cost/beneficial. For instance it may not be possible to know before the fact who will use educational benefits or who will, for example, become a deserter. However, these elements are not a factor in the personnel assignment process, which is the motivation behind the submodels, the refinement of these costs and the greater degree of accuracy that may be achieved would not significantly enhance the EBCM.

In the submodels it is also possible to divide the elements into greater detail. For example, Navy Enlisted Classification (NEC) codes and ratings groups identified in the submodels can be classified as individual elements. Such refinement would create a billet cost structure by individual. However, a billet cost structure by individual would negate the usefulness of the models by requiring a model to be constructed for every Navy enlisted member in every imaginable case.

C. TOPICS FOR FURTHER STUDY

The EBCM was constructed as a result of implementing a recommendation from a thesis by Padgett [Ref. 1]. The thesis develops the Officer Billet Cost Model (OBCM). Both the EBCM and OBCM were developed utilizing the same basic cost information. They were designed to achieve the same objective which is to refine the average cost figures currently in use. Due to their similarity of design and purpose, and because the EBCM was created as an outgrowth of

the OBCM, it is suggested that both Recommendations Two and Three contained in Reference 1 be implemented. The recommendations have been tailored to the EBCM and restated as Topics One and Two in this chapter for use at the resource sponsor level. The two recommendations are designed to provide resource sponsors access to current information on billet costs.

1. Topic One--Develop a Data Base Management System Integrating the Individual Data Bases Together at the OP-80 Level

Numerous data bases are required to obtain the information used to develop the average cost figures. These data bases would also be required to develop the cost figures for the EBCM and submodels. Resource sponsors do not presently have access to any of these individual data bases but must rely on three separate DON offices for input. A data base management system would provide many users with access to common data. Establishment of a data base management system for resource sponsors would provide them timely access to the information required to develop EBCM and submodel cost figures, thus increasing office productivity.

2. Topic Two--Develop an Automated Program Employing the Basic EBCM and Six Submodels

The basic EBCM and six submodels cost figures are generated using mathematical equations. A computer program would speed up processing of these equations, thereby simplifying computation of billet costs.

The purpose of this thesis is to present an enlisted manpower costing model for use in budget planning. The Enlisted Billet Cost Model apportions costs of individual enlisted personnel or groups of enlisted personnel based on areas of specialization and qualification. This model will enable resource sponsors to both budget for personnel costs of each billet as well as to budget personnel costs for special programs.

Resource sponsors will be able to refer to the basic model and six submodels to more closely approximate the true costs of particular enlisted billets. Specific tables will provide assignment costs by pay grade and area of specialty.

APPENDIX

MODEL COSTS, EQUATIONS, ABBREVIATIONS AND ACRONYMS

A. BILLET COSTS OF THE ENLISTED BILLET COST MODEL

Tables 1 through 3 present the total enlisted billet cost for enlisted personnel by pay grade using the basic EBCM.

B. BILLET COSTS OF THE SUBMODELS

Tables 4 through 20 illustrate the submodel costs by element and pay grade.

C. EQUATIONS OF THE ENLISTED BILLET COST MODEL

Tables 21 through 29 provide the formulas used in calculating the enlisted billet cost for enlisted personnel by pay grade in the basic EBCM.

For simplification of computations, the word "through" is used to denote inclusive pay grades. For example, the #E-1's through #E-3's means #E-1's + #E-2's + #E-3's.

D. EQUATIONS OF THE SUBMODELS

Tables 30 through 35 provide the equations used in calculating total enlisted billet cost by submodel.

E. ABBREVIATIONS AND ACRONYMS

Table 36 defines the abbreviations and acronyms used in the Enlisted Billet Cost Model and submodel equations.

TABLE 1
ENLISTED BILLET COST FOR NON RATED PERSONNEL

COST ELEMENT	E-1	E-2	E-3
1. Basic Pay	7306.00	8596.00	9375.33
2. Retired Pay Accrual	3598.21	4233.53	4617.35
3. Social Security Tax	522.38	614.61	670.34
4. Basic Allowance for Quarters	293.09	544.49	970.18
5. Variable Housing Allowance	71.51	151.76	314.08
6. Clothing Allowance	564.47	641.53	86.17
7. Subsistence of Enlisted Personnel	1572.77	1572.77	1572.77
8. Permanent Change of Station Travel	811.43	811.43	811.43
9. Apprehension of Military Deserters	3.49	3.49	3.49
10. Death Gratuities	2.90	2.90	2.90
11. Unemployment Compensation	54.11	54.11	54.11
12. Survivor's Benefits	14.08	14.08	14.08
13. Educational Benefits	67.35	67.35	67.35
14. Separation Payments	158.10	170.50	199.40
15. Family Separation	0.00	54.41	54.52
ENLISTED BILLET COST	15,039.89	17,532.83	18,813.50
NUMBER OF ENLISTED	35,478	42,434	87,032

TABLE 2
ENLISTED BILLET COST FOR PETTY OFFICERS

COST ELEMENT	E-4	E-5	E-6
1. Basic Pay	10,686.15	12,723.11	15,631.95
2. Retired Pay Accrual	5262.93	62,665.13	7698.74
3. Social Security Tax	764.06	909.70	1117.68
4. Basic Allowance for Quarters	1384.89	2098.65	2765.71
5. Variable Housing Allowance	458.04	689.73	969.74
6. Clothing Allowance	86.17	202.47	202.47
7. Subsistence of Enlisted Personnel	1572.77	1572.77	1572.77
8. Permanent Change of Station Travel	867.03	867.03	867.03
9. Apprehension of Military Deserters	3.49	3.49	3.49
10. Death Gratuities	2.90	2.90	2.90
11. Unemployment Compensation	54.11	54.11	54.11
12. Survivor's Benefits	14.08	14.08	14.08
13. Educational Benefits	67.35	67.35	67.35
14. Separation Payments	253.44	265.00	272.61
15. Family Separation	54.73	55.17	55.47
ENLISTED BILLET COST	21,290.28	25,437.83	30,934.33
NUMBER OF ENLISTED	122,592	103,660	78,569

TABLE 3
ENLISTED BILLET COST FOR CHIEF PETTY OFFICERS

COST ELEMENT	E-7	E-8	E-9
1. Basic Pay	18,999.00	22,818.00	27,769.00
2. Retired Pay Accrual	9357.01	11,237.87	13,676.23
3. Social Security Tax	1358.43	1631.49	1985.48
4. Basic Allowance for Quarters	3274.37	3868.01	4438.50
5. Variable Housing Allowance	1230.69	1413.91	1543.31
6. Clothing Allowance	327.45	202.47	202.47
7. Subsistence of Enlisted Personnel	1572.77	1572.77	1572.77
8. Permanent Change of Station Travel	680.74	680.74	680.74
9. Apprehension of Military Deserters	3.49	3.49	3.49
10. Death Gratuities	2.90	2.90	2.90
11. Unemployment Compensation	54.11	54.11	54.11
12. Survivor's Benefits	14.08	14.08	14.08
13. Educational Benefits	67.35	67.35	67.35
14. Separation Payments	253.44	265.00	272.61
15. Family Separation	57.27	57.95	57.69
ENLISTED BILLET COST	37,097.53	43,722.57	52,165.25
NUMBER OF ENLISTED	32,427	9948	4623

TABLE 4

INCENTIVE PAY FOR HAZARDOUS DUTY--NEC REQUIRED
(E-1--E-3)

COST ELEMENT	E-1	E-2	E-3
S1 Submarine Duty	660.00	660.00	720.00
S2 Flying Duty--Crew	1320.00	1320.00	1320.00
S3 Parachute Jumping	1524.00	1524.00	1524.00
S4 Duty Inside High or Low Pressure Chamber	1320.00	1320.00	1320.00
S5 Demolition Duty	1320.00	1320.00	1320.00
S6 Toxic Material Pay	1320.00	1320.00	1320.00

TABLE 5

INCENTIVE PAY FOR HAZARDOUS DUTY--NEC REQUIRED
(E-4--E-6)

COST ELEMENT	E-4	E-5	E-6
S1 Submarine Duty	810.00	1485.00	2060.00
S2 Flying Duty- Crew	1500.00	1800.00	2100.00
S3 Parachute Jumping	1524.00	1524.00	1524.00
S4 Duty Inside High or Low Pressure Chamber	1320.00	1320.00	1320.00
S5 Demolition Duty	1320.00	1320.00	1320.00
S6 Toxic Material Pay	1320.00	1320.00	1320.00

TABLE 6

INCENTIVE PAY FOR HAZARDOUS DUTY--NEC REQUIRED
(E-7--E-9)

COST ELEMENT	E-7	E-8	E-9
S1 Submarine Duty	2410.00	2845.00	3130.00
S2 Flying Duty--Crew	2400.00	2400.00	2400.00
S3 Parachute Jumping	1524.00	1524.00	1524.00
S4 Duty Inside High or Low Pressure Chamber	1320.00	1320.00	1320.00
S5 Demolition Duty	1320.00	1320.00	1320.00
S6 Toxic Material Pay	1320.00	1320.00	1320.00

TABLE 7

INCENTIVE PAY FOR HAZARDOUS DUTY--NEC NOT REQUIRED
(E-1--E-3)

COST ELEMENT	E-1	E-2	E-3
S1 Flight Deck Duty	1320.00	1320.00	1320.00
S2 Flying Duty--Noncrew	1320.00	1320.00	1320.00

TABLE 8

INCENTIVE PAY FOR HAZARDOUS DUTY--NEC NOT REQUIRED
(E-4--E-6)

COST ELEMENT	E-4	E-5	E-6
S1 Flight Deck Duty	1320.00	1320.00	1320.00
S2 Flying Duty--Noncrew	1320.00	1320.00	1320.00

TABLE 9

INCENTIVE PAY FOR HAZARDOUS DUTY--NEC NOT REQUIRED
(E-7--E-9)

COST ELEMENT	E-7	E-8	E-9
S1 Flight Deck Duty	1320.00	1320.00	1320.00
S2 Flying Duty--Noncrew	1320.00	1320.00	1320.00

TABLE 10

SPECIAL PAY--NEC REQUIRED (E-1--E-3)

COST ELEMENT	E-1	E-2	E-3
S1 Diving Pay	1940.00	1940.00	2940.00
S2 Special Duty Assignment Pay			
* a. General	0.00	0.00	0.00
* b. Recruiter	0.00	0.00	0.00

* authorized by law but not currently funded or paid

TABLE 11

SPECIAL PAY--NEC REQUIRED (E-4--E-6)

COST ELEMENT	E-4	E-5	E-6
S1 Diving Pay	1940.00	1940.00	1940.00
S2 Special Duty Assignment Pay			
a. General	1415.00	1415.00	1415.00
b. Recruiter	2825.00	2825.00	2825.00

TABLE 12

SPECIAL PAY--NEC REQUIRED (E-7--E-9)

COST ELEMENT	E-7	E-8	E-9
S1 Diving Pay	1940.00	1940.00	1940.00
S2 Special Duty Assignment Pay			
a. General	1415.00	1415.00	1415.00
b. Recruiter	2825.00	2825.00	2825.00

TABLE 13

SPECIAL PAY--OVERSEAS ASSIGNMENT (E-1--E-3)

COST ELEMENT	E-1	E-2	E-3
S1 Station Allowance Overseas	219.00	219.00	219.00
S2 Duty at Certain Places	96.00	96.00	96.00
S3 Overseas Extension Pay	960.00	960.00	960.00
S4 Imminent Danger Pay	1320.00	1320.00	1320.00
* S5 Foreign Language Proficiency Pay	0.00	0.00	0.00

* authorized by law but not currently funded or paid

TABLE 14

SPECIAL PAY--OVERSEAS ASSIGNMENT (E-4--E-6)

COST ELEMENT	E-4	E-5	E-6
S1 Station Allowance Overseas	219.00	219.00	219.00
S2 Duty at Certain Places	156.00	192.00	240.00
S3 Overseas Extension Pay	960.00	960.00	960.00
S4 Imminent Danger Pay	1320.00	1320.00	1320.00
* S5 Foreign Language Proficiency Pay	0.00	0.00	0.00

* authorized by law but not currently funded or paid

TABLE 15

SPECIAL PAY--OVERSEAS ASSIGNMENT (E-7--E-9)

COST ELEMENT	E-7	E-8	E-9
S1 Station Allowance Overseas	219.00	219.00	219.00
S2 Duty at Certain Places	270.00	270.00	270.00
S3 Overseas Extension Pay	960.00	960.00	960.00
S4 Imminent Danger Pay	1320.00	1320.00	1320.00
* S5 Foreign Language Proficiency Pay	0.00	0.00	0.00

* authorized by law but not currently funded or paid

TABLE 16

SPECIAL PAY--SEA ASSIGNMENT (E-4--E-6)

COST ELEMENT	E-4	E-5	E-6
S1 Career Sea Pay	1305.00	2150.00	2790.00
S2 Premium Sea Pay	1200.00	1200.00	1200.00

TABLE 17

SPECIAL PAY-SEA ASSIGNMENT (E-7--E-9)

COST ELEMENT	E-7	E-8	E-9
S1 Career Sea Pay	3390.00	3720.00	3720.00
S2 Premium Sea Pay	1200.00	1200.00	1200.00

TABLE 18

SPECIAL PAY--BONUS (E-1--E-3)

COST ELEMENT	E-1	E-2	E-3
S1 Enlistment Bonus			
a. New	2445.00	2445.00	2445.00
b. Residual	2226.00	2226.00	2226.00
S2 Reenlistment Bonus			
a. Initial	0.00	0.00	6883.00
b. Anniversary	0.00	0.00	1500.00

TABLE 19
SPECIAL PAY--BONUS (E-4--E-6)

COST ELEMENT	E-4	E-5	E-6
S1 Enlistment Bonus			
a. New	0.00	0.00	0.00
b. Residual	0.00	0.00	0.00
S2 Reenlistment Bonus			
a. Initial	6883.00	6883.00	6883.00
b. Anniversary	1500.00	1500.00	1500.00

TABLE 20
SPECIAL PAY--BONUS (E-7--E-9)

COST ELEMENT	E-7	E-8	E-9
S1 Enlistment Bonus			
a. New	0.00	0.00	0.00
b. Residual	0.00	0.00	0.00
S2 Reenlistment Bonus			
a. Initial	6883.00	0.00	0.00
b. Anniversary	1500.00	0.00	0.00

TABLE 21

ENLISTED BILLET COST MODEL EQUATIONS FOR E-1

1. BP = BP Mean Rate for E-1's
2. RPA = BP Mean Rate for E-1's x Normal Cost %
3. SST = BP Mean Rate for E-1's x CY % Rate
4. BAQ = $\{ (\text{Dep BAQ Rate for E-1's} \times \# \text{E-1's eligible}) + (\text{W/O Dep BAQ Rate for E-1's} \times \# \text{E-1's eligible}) + (\text{PA Rate for E-1's} \times \# \text{E-1's eligible}) + (\text{SHF Rate for E-1's} \times \# \text{E-1's eligible}) \} / \# \text{E-1's}$
5. VHA = $(\text{VHA Rate for E-1's} \times \# \text{E-1's eligible}) / \# \text{E-1's}$
6. CA = $\{ (\text{Initial Rate M} \times \# \text{M eligible}) + (\text{Initial Rate F} \times \# \text{F eligible}) \} / (\# \text{E-1's} + \# \text{E-2's}) +$
 $\{ (\text{OCS Rate} \times \# \text{OCS eligible}) + (\text{AOC Rate} \times \# \text{AOC eligible}) + (\text{NB Rate} \times \# \text{NB eligible}) + (\text{Civ W\&S Rate} \times \# \text{W\&S eligible}) + (\text{Civ WorS Rate} \times \# \text{WorS eligible}) + (\text{Sup Rate} \times \# \text{Sup eligible}) \} / \# \text{E's}$
7. SEP = $(\text{MPN Bud Amt for BAS} + \text{MPN Bud Amt for SIK}) / \# \text{E's}$
8. PCS = $(\text{MPN Bud Amt for AT (E)}) / (\# \text{E-1's through } \# \text{E-6's}) +$
 $(\text{MPN Bud Amt for TT (E)}) / (\# \text{E-1's through } \# \text{E-6's}) +$
 $(\text{MPN Bud Amt for OT (E)} / \# \text{E's}) +$
 $(\text{MPN Bud Amt for RT (E)} / \# \text{E's}) +$
 $(\text{MPN Bud Amt for ST (E)} / \# \text{E's}) +$
 $(\text{MPN Bud Amt for TOU (E)} / \# \text{E's})$
9. AMD = MPN Bud Amt for AMD / #E's
10. DG = MPN Bud Amt for DG / #E's
11. UC = MPN Bud Amt for UC / #E's
12. SB = MPN Bud Amt for SB / #E's
13. EB = MPN Bud Amt for EB / #E's

TABLE 21 (CONTINUED)

14. $SP = (LSTL \text{ Rate for E-1's} \times \#E\text{-1's eligible}) / \#E\text{-1's}$
+ (MPN Bud Amt for SP-D / #E's)

15. FSA = Not applicable

TABLE 22

ENLISTED BILLET COST MODEL EQUATIONS FOR E-2

1. BP = BP Mean Rate for E-2's
2. RPA = BP Mean Rate for E-2's x Normal Cost %
3. SST = BP Mean Rate for E-2's x CY % Rate
4. BAQ = {(Dep BAQ Rate for E-2's x #E-2's eligible) +
(W/O Dep BAQ Rate for E-2's x #E-2's eligible) +
(PA Rate for E-2's x #E-2's eligible) +
(SHF Rate for E-2's x #E-2's eligible)} / #E-2's
5. VHA = (VHA Rate for E-2's x #E-2's eligible) / #E-2's
6. CA = (Initial Rate M x #M eligible) +
(Initial Rate F x #F eligible) /
(#E-1's + #E-2's) +

{(OCS Rate x #OCS eligible) +
(AOC Rate x #AOC eligible) +
(NB Rate x #NB eligible) +
(Civ W&S Rate x #W&S eligible) +
(Civ WorS Rate x #WorS eligible) +
(Sup Rate x #Sup eligible)} / #E's +

{(Basic Rate M x #M eligible) +
(Basic Rate F x #F eligible)} /
(#E-2's through #E-4's)
7. SEP = (MPN Bud Amt for BAS + MPN Bud Amt for SIK) / #E's
8. PCS = {(MPN Bud Amt for AT (E)) /
(#E-1's through #E-6's) +

(MPN Bud Amt for TT (E)) /
(#E-1's through #E-6's) +

(MPN Bud Amt for OT (E) / #E's) +
(MPN Bud Amt for RT (E) / #E's) +
(MPN Bud Amt for ST (E) / #E's) +
(MPN Bud Amt for TOU (E) / #E's)}
9. AMD = MPN Bud Amt for AMD / #E's
10. DG = MPN Bud Amt for DG / #E's
11. UC = MPN Bud Amt for UC / #E's

TABLE 22 (CONTINUED)

$$12. SB = \text{MPN Bud Amt for SB} / \#E's$$

$$13. EB = \text{MPN Bud Amt for EB} / \#E's$$

$$14. SP = (\text{LSTL Rate for E-2's} \times \#E-2's \text{ eligible}) / \#E-2's \\ + (\text{MPN Bud Amt for SP-D} / \#E's)$$

$$15. FSA = \{ (\text{PCS Dep Not Auth, Govt Qtrs Not Avail Rate} \times \\ \#E-2's \text{ eligible}) / \#E-2's \} + \\ \{ [(\text{PCS Dep Not Auth} \times \#E-2's \text{ eligible}) + \\ (\text{Ship} \times \#E-2's \text{ eligible}) + \\ (\text{TAD} \times \#E-2's \text{ eligible})] \} / \#E's \}$$

TABLE 23

ENLISTED BILLET COST MODEL EQUATIONS FOR E-3

1. BP = BP Mean Rate for E-3's
2. RPA = BP Mean Rate for E-3's x Normal Cost %
3. SST = BP Mean Rate for E-3's x CY % Rate
4. BAQ = {(Dep BAQ Rate for E-3's x #E-3's eligible) +
(W/O Dep BAQ Rate for E-3's x #E-3's eligible) +
(PA Rate for E-3's x #E-3's eligible) +
(SHF Rate for E-3's x #E-3's eligible)} / #E-3's
5. VHA = (VHA Rate for E-3's x #E-3's eligible) / #E-3's
6. CA = {(OCS Rate x #OCS eligible) +
(AOC Rate x #AOC eligible) +
(NB Rate x #NB eligible) +
(Civ W&S Rate x #W&S eligible) +
(Civ WorS Rate x #WorS eligible) +
(Sup Rate x #Sup eligible)} / #E's +

{(Basic Rate M x #M eligible) +
(Basic Rate F x #F eligible)} /
(#E-2's through #E-4's)
7. SEP = (MPN Bud Amt for BAS + MPN Bud Amt for SIK) / #E's
8. PCS = {(MPN Bud Amt for AT (E)) /
(#E-1's through #E-6's) +

(MPN Bud Amt for TT (E)) /
(#E-1's through #E-6's) +

(MPN Bud Amt for OT (E) / #E's) +
(MPN Bud Amt for RT (E) / #E's) +
(MPN Bud Amt for ST (E) / #E's) +
(MPN Bud Amt for TOU (E) / #E's)}
9. AMD = MPN Bud Amt for AMD / #E's
10. DG = MPN Bud Amt for DG / #E's
11. UC = MPN Bud Amt for UC / #E's
12. SB = MPN Bud Amt for SB / #E's
13. EB = MPN Bud Amt for EB / #E's

TABLE 23 (CONTINUED)

$$14. SP = (LSTL \text{ Rate for E-3's} \times \#E\text{-3's eligible}) / \#E\text{-3's} \\ + (MPN \text{ Bud Amt for SP-D} / \#E\text{'s})$$

$$15. FSA = \{ (PCS \text{ Dep Not Auth, Govt Qtrs Not Avail Rate} \times \\ \#E\text{-3's eligible}) / \#E\text{-3's} \} + \\ \{ [(PCS \text{ Dep Not Auth} \times \#E\text{-3's eligible}) + \\ (Ship \times \#E\text{-3's eligible}) + \\ (TAD \times \#E\text{-3's eligible})] \} / \#E\text{'s}$$

TABLE 24

ENLISTED BILLET COST MODEL EQUATIONS FOR E-4

1. BP = BP Mean Rate for E-4's
2. RPA = BP Mean Rate for E-4's x Normal Cost %
3. SST = BP Mean Rate for E-4's x CY % Rate
4. BAQ = {(Dep BAQ Rate for E-4's x #E-4's eligible) +
(W/O Dep BAQ Rate for E-4's x #E-4's eligible) +
(PA Rate for E-4's x #E-4's eligible) +
(SHF Rate for E-4's x #E-4's eligible)} / #E-4's
5. VHA = (VHA Rate for E-4's x #E-4's eligible) / #E-4's
6. CA = {(OCS Rate x #OCS eligible) +
(AOC Rate x #AOC eligible) +
(NB Rate x #NB eligible) +
(Civ W&S Rate x #W&S eligible) +
(Civ WorS Rate x #WorS eligible) +
(Sup Rate x #Sup eligible)} / #E's +

{(Basic Rate M x #M eligible) +
(Basic Rate F x #F eligible) /
(#E-2's through #E-4's)}
7. SEP = (MPN Bud Amt for BAS + MPN Bud Amt for SIK) / #E's
8. PCS = (MPN Bud Amt for AT (E)) /
(#E-1's through #E-6's) +

(MPN Bud Amt for TT (E)) /
(#E-1's through #E-6's) +

(MPN Bud Amt for OT (E) / #E's) +
(MPN Bud Amt for RT (E) / #E's) +
(MPN Bud Amt for ST (E) / #E's) +
(MPN Bud Amt for TOU (E) / #E's) +

{(MPN Bud Amt for NTS) x
[(#E-4's through #E-9's) /
(#E-4's through #E-9's + #O's)]} /
(#E-4's through #E-9's) +

{(MPN Bud Amt for TLE) x
[(#E-4's through #E-9's) /
(#E-4's through #E-9's + #O's)]} /
(#E-4's through #E-9's)

TABLE 24 (CONTINUED)

9. $AMD = MPN \text{ Bud Amt for AMD} / \#E's$
10. $DG = MPN \text{ Bud Amt for DG} / \#E's$
11. $UC = MPN \text{ Bud Amt for UC} / \#E's$
12. $SB = MPN \text{ Bud Amt for SB} / \#E's$
13. $EB = MPN \text{ Bud Amt for EB} / \#E's$
14. $SP = (LSTL \text{ Rate for E-4's} \times \#E-4's \text{ eligible}) / \#E-4's$
 $+ (MPN \text{ Bud Amt for SP-D} / \#E's)$
15. $FSA = \{ (PCS \text{ Dep Not Auth, Govt Qtrs Not Avail Rate} \times$
 $\#E-4's \text{ eligible}) / \#E-4's \} +$
 $\{ [(PCS \text{ Dep Not Auth} \times \#E-4's \text{ eligible}) +$
 $(Ship \times \#E-4's \text{ eligible}) +$
 $(TAD \times \#E-4's \text{ eligible})] / \#E's \}$

TABLE 25

ENLISTED BILLET COST MODEL EQUATIONS FOR E-5

1. BP = BP Mean Rate for E-5's
2. RPA = BP Mean Rate for E-5's x Normal Cost %
3. SST = BP Mean Rate for E-5's x CY % Rate
4. BAQ = $\{ (\text{Dep BAQ Rate for E-5's} \times \# \text{E-5's eligible}) + (\text{W/O Dep BAQ Rate for E-5's} \times \# \text{E-5's eligible}) + (\text{PA Rate for E-5's} \times \# \text{E-5's eligible}) + (\text{SHF Rate for E-5's} \times \# \text{E-5's eligible}) \} / \# \text{E-5's}$
5. VHA = $(\text{VHA Rate for E-5's} \times \# \text{E-5's eligible}) / \# \text{E-5's}$
6. CA = $\{ (\text{OCS Rate} \times \# \text{OCS eligible}) + (\text{AOC Rate} \times \# \text{AOC eligible}) + (\text{NB Rate} \times \# \text{NB eligible}) + (\text{Civ W\&S Rate} \times \# \text{W\&S eligible}) + (\text{Civ WorS Rate} \times \# \text{WorS eligible}) + (\text{Sup Rate} \times \# \text{Sup eligible}) \} / \# \text{E's} +$

 $\{ (\text{Standard Rate M} \times \# \text{M eligible}) + (\text{Standard Rate F} \times \# \text{F eligible}) \} /$
 $(\# \text{E-5's through } \# \text{E-9's})$
7. SEP = $(\text{MPN Bud Amt for BAS} + \text{MPN Bud Amt for SIK}) / \# \text{E's}$
8. PCS = $(\text{MPN Bud Amt for AT (E)}) / (\# \text{E-1's through } \# \text{E-6's}) +$

 $(\text{MPN Bud Amt for TT (E)}) / (\# \text{E-1's through } \# \text{E-6's}) +$

 $(\text{MPN Bud Amt for OT (E)} / \# \text{E's}) +$
 $(\text{MPN Bud Amt for RT (E)} / \# \text{E's}) +$
 $(\text{MPN Bud Amt for ST (E)} / \# \text{E's}) +$
 $(\text{MPN Bud Amt for TOU (E)} / \# \text{E's}) +$

 $\{ (\text{MPN Bud Amt for NTS}) \times [(\# \text{E-4's through } \# \text{E-9's}) / (\# \text{E-4's through } \# \text{E-9's} + \# \text{O's})] \} /$
 $(\# \text{E-4's through } \# \text{E-9's}) +$

 $\{ (\text{MPN Bud Amt for TLE}) \times [(\# \text{E-4's through } \# \text{E-9's}) / (\# \text{E-4's through } \# \text{E-9's} + \# \text{O's})] \} /$
 $(\# \text{E-4's through } \# \text{E-9's})$

TABLE 25 (CONTINUED)

9. $AMD = MPN \text{ Bud Amt for AMD} / \#E's$
10. $DG = MPN \text{ Bud Amt for DG} / \#E's$
11. $UC = MPN \text{ Bud Amt for UC} / \#E's$
12. $SB = MPN \text{ Bud Amt for SB} / \#E's$
13. $EB = MPN \text{ Bud Amt for EB} / \#E's$
14. $SP = (LSTL \text{ Rate for E-5's} \times \#E-5's \text{ eligible}) / \#E-5's$
 $+ (MPN \text{ Bud Amt for SP-D} / \#E's)$
15. $FSA = \{ (PCS \text{ Dep Not Auth, Govt Qtrs Not Avail Rate} \times$
 $\#E-5's \text{ eligible}) / \#E-5's \} +$
 $\{ [(PCS \text{ Dep Not Auth} \times \#E-5's \text{ eligible}) +$
 $(Ship \times \#E-5's \text{ eligible}) +$
 $(TAD \times \#E-5's \text{ eligible})] / \#E's \}$

TABLE 26

ENLISTED BILLET COST MODEL EQUATIONS FOR E-6

1. BP = BP Mean Rate for E-6's
2. RPA = BP Mean Rate for E-6's x Normal Cost %
3. SST = BP Mean Rate for E-6's x CY % Rate
4. BAQ = $\{ (\text{Dep BAQ Rate for E-6's} \times \text{\#E-6's eligible}) + (\text{W/O Dep BAQ Rate for E-6's} \times \text{\#E-6's eligible}) + (\text{PA Rate for E-6's} \times \text{\#E-6's eligible}) + (\text{SHF Rate for E-6's} \times \text{\#E-6's eligible}) \} / \text{\#E-6's}$
5. VHA = $(\text{VHA Rate for E-6's} \times \text{\#E-6's eligible}) / \text{\#E-6's}$
6. CA = $\{ (\text{OCS Rate} \times \text{\#OCS eligible}) + (\text{AOC Rate} \times \text{\#AOC eligible}) + (\text{NB Rate} \times \text{\#NB eligible}) + (\text{Civ W\&S Rate} \times \text{\#W\&S eligible}) + (\text{Civ WorS Rate} \times \text{\#WorS eligible}) + (\text{Sup Rate} \times \text{\#Sup eligible}) \} / \text{\#E's} +$
 $\{ (\text{Standard Rate M} \times \text{\#M eligible}) + (\text{Standard Rate F} \times \text{\#F eligible}) / (\text{\#E-5's through \#E-9's}) \}$
7. SEP = $(\text{MPN Bud Amt for BAS} + \text{MPN Bud Amt for SIK}) / \text{\#E's}$
8. PCS = $(\text{MPN Bud Amt for AT (E)}) / (\text{\#E-1's through \#E-6's}) +$
 $(\text{MPN Bud Amt for TT (E)}) / (\text{\#E-1's through \#E-6's}) +$
 $(\text{MPN Bud Amt for OT (E)}) / \text{\#E's} +$
 $(\text{MPN Bud Amt for RT (E)}) / \text{\#E's} +$
 $(\text{MPN Bud Amt for ST (E)}) / \text{\#E's} +$
 $(\text{MPN Bud Amt for TOU (E)}) / \text{\#E's} +$
 $\{ (\text{MPN Bud Amt for NTS}) \times [(\text{\#E-4's through \#E-9's}) / (\text{\#E-4's through \#E-9's} + \text{\#O's})] \} / (\text{\#E-4's through \#E-9's}) +$
 $\{ (\text{MPN Bud Amt for TLE}) \times [(\text{\#E-4's through \#E-9's}) / (\text{\#E-4's through \#E-9's} + \text{\#O's})] \} / (\text{\#E-4's through \#E-9's})$

TABLE 26 (CONTINUED)

9. AMD = MPN Bud Amt for AMD / #E's
10. DG = MPN Bud Amt for DG / #E's
11. UC = MPN Bud Amt for UC / #E's
12. SB = MPN Bud Amt for SB / #E's
13. EB = MPN Bud Amt for EB / #E's
14. SP = (LSTL Rate for E-6's x #E-6's eligible) / #E-6's
+ (MPN Bud Amt for SP-D / #E's)
15. FSA = { (PCS Dep Not Auth, Govt Qtrs Not Avail Rate x
#E-6's eligible) / #E-6's} +

{ [(PCS Dep Not Auth x #E-6's eligible) +
(Ship x #E-6's eligible) +
(TAD x #E-6's eligible)] / #E's}

TABLE 27

ENLISTED BILLET COST MODEL EQUATIONS FOR E-7

1. BP = BP Mean Rate for E-7's
2. RPA = BP Mean Rate for E-7's x Normal Cost %
3. SST = BP Mean Rate for E-7's x CY % Rate
4. BAQ = {(Dep BAQ Rate for E-7's x #E-7's eligible) +
(W/O Dep BAQ Rate for E-7's x #E-7's eligible) +
(PA Rate for E-7's x #E-7's eligible) +
(SHF Rate for E-7's x #E-7's eligible)} / #E-7's
5. VHA = (VHA Rate for E-7's x #E-7's eligible) / #E-7's
6. CA = {(OCS Rate x #OCS eligible) +
(AOC Rate x #AOC eligible) +
(NB Rate x #NB eligible) +
(Civ W&S Rate x #W&S eligible) +
(Civ WorS Rate x #WorS eligible) +
(Sup Rate x #Sup eligible)} / #E's +

{(Standard Rate M x #M eligible) +
(Standard Rate F x #F eligible)} /
(#E-5's through #E-9's) +

(Initial rate E-7 x #E-7's eligible) / #E-7's
7. SEP = (MPN Bud Amt for BAS + MPN Bud Amt for SIK) / #E's
8. PCS = (MPN Bud Amt for OT (E) / #E's) +
(MPN Bud Amt for RT (E) / #E's) +
(MPN Bud Amt for ST (E) / #E's) +
(MPN Bud Amt for TOU (E) / #E's) +

{(MPN Bud Amt for NTS) x
[(#E-4's through #E-9's) /
(#E-4's through #E-9's + #O's)]} /
(#E-4's through #E-9's) +

{(MPN Bud Amt for TLE) x
[(#E-4's through #E-9's) /
(#E-4's through #E-9's + #O's)]} /
(#E-4's through #E-9's)
9. AMD = MPN Bud Amt for AMD / #E's
10. DG = MPN Bud Amt for DG / #E's

TABLE 27 (CONTINUED)

11. UC = MPN Bud Amt for UC / #E's
12. SB = MPN Bud Amt for SB / #E's
13. EB = MPN Bud Amt for EB / #E's
14. SP = (LSTL Rate for E-7's x #E-7's eligible) / #E-7's
+ (MPN Bud Amt for SP-D / #E's)
15. FSA = { (PCS Dep Not Auth, Govt Qtrs Not Avail Rate x
#E-7's eligible) / #E-7's} +

{ [(PCS Dep Not Auth x #E-7's eligible) +
(Ship x #E-7's eligible) +
(TAD x #E-7's eligible)] / #E's}

TABLE 28

ENLISTED BILLET COST MODEL EQUATIONS FOR E-8

1. BP = BP Mean Rate for E-8's
2. RPA = BP Mean Rate for E-8's x Normal Cost %
3. SST = BP Mean Rate for E-8's x CY % Rate
4. BAQ = {(Dep BAQ Rate for E-8's x #E-8's eligible) +
(W/O Dep BAQ Rate for E-8's x #E-8's eligible) +
(PA Rate for E-8's x #E-8's eligible) +
(SHF Rate for E-8's x #E-8's eligible)} / #E-8's
5. VHA = (VHA Rate for E-8's x #E-8's eligible) / #E-8's
6. CA = {(OCS Rate x #OCS eligible) +
(AOC Rate x #AOC eligible) +
(NB Rate x #NB eligible) +
(Civ W&S Rate x #W&S eligible) +
(Civ WorS Rate x #WorS eligible) +
(Sup Rate x #Sup eligible)} / #E's +

{(Standard Rate M x #M eligible) +
(Standard Rate F x #F eligible)} /
(#E-5's through #E-9's)
7. SEP = (MPN Bud Amt for BAS + MPN Bud Amt for SIK) / #E's
8. PCS = (MPN Bud Amt for OT (E) / #E's) +
(MPN Bud Amt for RT (E) / #E's) +
(MPN Bud Amt for ST (E) / #E's) +
(MPN Bud Amt for TOU (E) / #E's) +

{(MPN Bud Amt for NTS) x
[(#E-4's through #E-9's) /
(#E-4's through #E-9's + #O's)]} /
(#E-4's through #E-9's) +

{(MPN Bud Amt for TLE) x
[(#E-4's through #E-9's) /
(#E-4's through #E-9's + #O's)]} /
(#E-4's through #E-9's)
9. AMD = MPN Bud Amt for AMD / #E's
10. DG = MPN Bud Amt for DG / #E's

TABLE 28 (CONTINUED)

11. UC = MPN Bud Amt for UC / #E's
12. SB = MPN Bud Amt for SB / #E's
13. EB = MPN Bud Amt for EB / #E's
14. SP = (LSTL Rate for E-8's x #E-8's eligible) / #E-8's
+ (MPN Bud Amt for SP-D / #E's)
15. FSA = { (PCS Dep Not Auth, Govt Qtrs Not Avail Rate x
#E-8's eligible) / #E-8's} +

{ [(PCS Dep Not Auth x #E-8's eligible) +
(Ship x #E-8's eligible) +
(TAD x #E-8's eligible)] / #E's}

TABLE 29

ENLISTED BILLET COST MODEL EQUATIONS FOR E-9

$$1. \text{ BP} = \text{BP Mean Rate for E-9's}$$

$$2. \text{ RPA} = \text{BP Mean Rate for E-9's} \times \text{Normal Cost \%}$$

$$3. \text{ SST} = \text{BP Mean Rate for E-9's} \times \text{CY \% Rate}$$

$$4. \text{ BAQ} = \{ (\text{Dep BAQ Rate for E-9's} \times \text{\#E-9's eligible}) + (\text{W/O Dep BAQ Rate for E-9's} \times \text{\#E-9's eligible}) + (\text{PA Rate for E-9's} \times \text{\#E-9's eligible}) + (\text{SHF Rate for E-9's} \times \text{\#E-9's eligible}) \} / \text{\#E-9's}$$

$$5. \text{ VHA} = (\text{VHA Rate for E-9's} \times \text{\#E-9's eligible}) / \text{\#E-9's}$$

$$6. \text{ CA} = \{ (\text{OCS Rate} \times \text{\#OCS eligible}) + (\text{AOC Rate} \times \text{\#AOC eligible}) + (\text{NB Rate} \times \text{\#NB eligible}) + (\text{Civ W\&S Rate} \times \text{\#W\&S eligible}) + (\text{Civ WorS Rate} \times \text{\#WorS eligible}) + (\text{Sup Rate} \times \text{\#Sup eligible}) \} / \text{\#E's} + \\ \{ (\text{Standard Rate M} \times \text{\#M eligible}) + (\text{Standard Rate F} \times \text{\#F eligible}) \} / (\text{\#E-5's through \#E-9's}) +$$

$$7. \text{ SEP} = (\text{MPN Bud Amt for BAS} + \text{MPN Bud Amt for SIK}) / \text{\#E's}$$

$$8. \text{ PCS} = (\text{MPN Bud Amt for OT (E)} / \text{\#E's}) + (\text{MPN Bud Amt for RT (E)} / \text{\#E's}) + (\text{MPN Bud Amt for ST (E)} / \text{\#E's}) + (\text{MPN Bud Amt for TOU (E)} / \text{\#E's}) +$$

$$\{ (\text{MPN Bud Amt for NTS}) \times [(\text{\#E-4's through \#E-9's}) / (\text{\#E-4's through \#E-9's} + \text{\#O's})] \} / (\text{\#E-4's through \#E-9's}) +$$

$$\{ (\text{MPN Bud Amt for TLE}) \times [(\text{\#E-4's through \#E-9's}) / (\text{\#E-4's through \#E-9's} + \text{\#O's})] \} / (\text{\#E-4's through \#E-9's})$$

$$9. \text{ AMD} = \text{MPN Bud Amt for AMD} / \text{\#E's}$$

$$10. \text{ DG} = \text{MPN Bud Amt for DG} / \text{\#E's}$$

$$11. \text{ UC} = \text{MPN Bud Amt for UC} / \text{\#E's}$$

TABLE 29 (CONTINUED)

12. $SB = \text{MPN Bud Amt for SB} / \#E's$
13. $EB = \text{MPN Bud Amt for EB} / \#E's$
14. $SP = (\text{LSTL Rate for E-9's} \times \#E-9's \text{ eligible}) / \#E-9's$
 $+ (\text{MPN Bud Amt for SP-D} / \#E's)$
15. $FSA = \{ (\text{PCS Dep Not Auth, Govt Qtrs Not Avail Rate} \times$
 $\#E-9's \text{ eligible}) / \#E-9's \} +$
 $\{ [(\text{PCS Dep Not Auth} \times \#E-9's \text{ eligible}) +$
 $(\text{Ship} \times \#E-9's \text{ eligible}) +$
 $(\text{TAD} \times \#E-9's \text{ eligible})] / \#E's \}$

TABLE 30

INCENTIVE PAY FOR HAZARDOUS DUTY--NEC REQUIRED

S1 Submarine Duty Pay *Pay grades E-1 through E-9*

E-1 (2 or less yrs rate x 12 mos) = E-1 yrly rate

E-2 (2 or less yrs rate x 12 mos) = E-2 yrly rate

E-3 (2 or less yrs rate x 12 mos) = E-3 yrly rate

E-4 (2 or less yrs rate x 3 mos) +
(over 2 yrs rate x 9 mos) = E-4 yrly rateE-5 {[(over 2 yrs rate x 3 mos) +
(over 3 yrs rate x 12 mos) +
(over 4 yrs rate x 21 mos)] /
36 mos} x 12 mos = E-5 yrly rateE-6 {[(over 4 yrs rate x 3 mos) +
(over 6 yrs rate x 24 mos) +
(over 8 yrs rate x 9 mos)] /
36 mos} x 12 mos = E-6 yrly rateE-7 {[(over 8 yrs rate x 15 mos) +
(over 10 yrs rate x 21 mos)] /
36 mos} x 12 mos = E-7 yrly rateE-8 {[(over 10 yrs rate x 3 mos) +
(over 12 yrs rate x 24 mos) +
(over 14 yrs rate x 9 mos)] /
36 mos} x 12 mos = E-8 yrly rateE-9 {[(over 14 yrs rate x 15 mos) +
(over 16 yrs rate x 21 mos)] /
36 mos} x 12 mos = E-9 yrly rate

S2 Flying Duty- Crew *Pay grades E-1 through E-9*

(statutory rate per mo
per pay grade x 12 mos) = pay grade yrly rate

S3 Parachute Jumping *Pay grades E-1 through E-9*

(MPN budgeted amount
per pay grade per year) = pay grade yrly rate

TABLE 30 (CONTINUED)

S4	Duty Inside High or Low Pressure Chamber	*Pay grades E-1 through E-9*
	(statutory rate per mo per pay grade x 12 mos)	= pay grade yrly rate
S5	Demolition Duty Pay	*Pay grades E-1 through E-9*
	(statutory rate per mo per pay grade x 12 mos)	= pay grade yrly rate
S6	Toxic Material Pay	*Pay grades E-1 through E-9*
	(statutory rate per mo per pay grade x 12 mos)	= pay grade yrly rate

TABLE 31

INCENTIVE PAY FOR HAZARDOUS DUTY--NEC NOT REQUIRED

S1	Flight Deck Duty Pay	*Pay grades E-1 through E-9*
	(statutory rate per mo per pay grade x 12 mos)	= pay grade yrly rate
S2	Flying Duty- Non Crew	*Pay grades E-1 through E-9*
	(statutory rate per mo per pay grade x 12 mos)	= pay grade yrly rate

TABLE 32

SPECIAL PAY--NEC REQUIRED

S1	Diving Pay	*Pay grades E-1 through E-9*
	(MPN budgeted amount per pay grade per year)	= pay grade yrly rate
S2	Special Duty Assignment Pay	*Pay grades E-4 through E-9*
a.	General (MPN budgeted amount / #E's eligible)	= pay grade yrly rate
b.	Recruiter (MPN budgeted amount / #E's eligible)	= pay grade yrly rate

TABLE 33

SPECIAL PAY--OVERSEAS ASSIGNMENT

S1	Station Allowance Overseas	*Pay grades E-1 through E-9*
	(statutory rate per mo per pay grade x 12 mos)	= pay grade yrly rate
S2	Duty at Certain Places	*Pay grades E-1 through E-9*
	(statutory rate per mo per pay grade x 12 mos)	= pay grade yrly rate
S3	Overseas Extension Pay	*Pay grades E-1 through E-9*
	(statutory rate per mo per pay grade x 12 mos)	= pay grade yrly rate
S4	Imminent Danger Pay	*Pay grades E-1 through E-9*
	(statutory rate per mo per pay grade x 12 mos)	= pay grade yrly rate
S5	Foreign Language Proficiency Pay	*Pay grades E-1 through E-9*
	(statutory rate per mo per pay grade x 12 mos)	= pay grade yrly rate
	(currently not authorized)	

TABLE 34

SPECIAL PAY--SEA ASSIGNMENT

S1	Career Sea Pay	*Pay grades E-4 through E-9*
E-4	$\{(\text{over 1 yr rate} \times 3 \text{ mos}) + (\text{over 2 yrs rate} \times 9 \text{ mos})\}$	= E-4 yrly rate
E-5	$\{[(\text{over 2 yrs rate} \times 3 \text{ mos}) + (\text{over 3 yrs rate} \times 12 \text{ mos}) + (\text{over 4 yrs rate} \times 12 \text{ mos}) + (\text{over 5 yrs rate} \times 9 \text{ mos})] / 36 \text{ mos}\} \times 12 \text{ mos}$	= E-5 yrly rate
E-6	$\{[(\text{over 5 yrs rate} \times 3 \text{ mos}) + (\text{over 6 yrs rate} \times 12 \text{ mos}) + (\text{over 7 yrs rate} \times 12 \text{ mos}) + (\text{over 8 yrs rate} \times 9 \text{ mos})] / 36 \text{ mos}\} \times 12 \text{ mos}$	= E-6 yrly rate
E-7	$\{[(\text{over 8 yrs rate} \times 3 \text{ mos}) + (\text{over 9 yrs rate} \times 12 \text{ mos}) + (\text{over 10 yrs rate} \times 12 \text{ mos}) + (\text{over 11 yrs rate} \times 9 \text{ mos})] / 36 \text{ mos}\} \times 12 \text{ mos}$	= E-7 yrly rate
E-8	$\{[(\text{over 11 yrs rate} \times 3 \text{ mos}) + (\text{over 12 yrs} \times 33 \text{ mos})] / 36 \text{ mos}\} \times 12 \text{ mos}$	= E-8 yrly rate
E-9	$\{(\text{over 12 yrs rate} \times 36 \text{ mos}) / 36 \text{ mos}\} \times 12 \text{ mos}$	= E-9 yrly rate
S2	Premium Sea Pay	*Pay grades E-4 through E-9*
	(statutory rate per mo per pay grade $\times 12 \text{ mos}$)	= pay grade yrly rate

TABLE 35
SPECIAL PAY--BONUS

S1	Enlistment Bonus	*Pay grades E-1 through E-3*
a.	New (MPN budgeted amount / #E's eligible)	= pay grade yrly rate
b.	Residual (MPN budgeted amount / #E's eligible)	= pay grade yrly rate
S2	Reenlistment Bonus	*Pay grades E-3 through E-7*
a.	Initial MPN budgeted rate	= pay grade yrly rate
b.	Anniversary MPN budgeted rate	= pay grade yrly rate

TABLE 36

ABBREVIATIONS AND ACRONYMS

AMD	Apprehension of Military Deserters
AOC	Aviation Officer Candidate
AT	Accession Travel
BAQ	Basic Allowance for Quarters
BAS	Basic Allowance for Subsistence
BP	Basic Pay
CA	Clothing Allowance
CIV W&S Rate	Civilian Winter and Summer Clothes Rate
CIV WorS Rate	Civilian Winter or Summer Clothes Rate
CY % Rate	Calendar Year Percentage Rate
Dep BAQ Rate	BAQ Rate With Dependents
DG	Death Gratuity
#E's	Total Number of Enlisted Personnel
EB	Educational Benefits
#F	Total Number of Female Enlisted Personnel
FSA	Family Separation Allowance
LSTL	Lump Sum Terminal Leave
#M	Total Number of Male Enlisted Personnel
Mo	Month
Mos	Months
MPN Bud Amt	Military Personnel, Navy Budgeted Amount
NB	Navy Band
NEC	Navy Enlisted Classification
NTS	Non-Temporary Storage

TABLE 36 (CONTINUED)

#O's	Total Number of Officers
OCS	Officer Candidate School
OT	Operational Travel
PA Rate	Partial Allowance--Bachelor BAQ Rate
PCS	Permanent Change of Station
PCS Dep Not Auth, Govt Qtrs Not Avail Rate	On Permanent Change of Station Dependents Not Authorized, Government Quarters Not Available Rate
PCS Dep Not Auth Rate	On Permanent Change of Station With Dependents Not Authorized Rate
RPA	Retired Pay Accrual
RT	Rotational Travel
SB	Survivor's Benefits
SEP	Subsistence of Enlisted Personnel
SHF	Substandard Housing--Family
Ship	On Board Ship for More Than 30 Days
SIK	Subsistence in Kind
SP	Separation Payments
SP-D	Severance Pay--Disability
SST	Social Security Tax--Employer's Contribution
ST	Separation Travel
SUP Rate	Supplementary Rate
TAD	Temporary Additional Duty
TLE	Temporary Lodging Expense
TOU	Travel of Organized Units
TT	Training Travel

TABLE 36 (CONTINUED)

UC	Unemployment Compensation
VHA	Variable Housing Allowance
W/Out Dep BAQ Rate	BAQ Rate Without Dependents
Yrly	Yearly
Yrs	Yrs

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